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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/159,775	09/24/1998	HIDEO KATO	35.G2254	5553

5514 7590 09/11/2002

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NEW YORK, NY 10112

EXAMINER

BROWN, KHALED

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/159,775

Applicant(s)

KATO ET AL.

Examin r

Khaled Brown

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3, 13 and 25 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-12, 14-24, 26, 28-34, 36, 37, 40-43, 46-48, 50, 51 and 54-62 is/are rejected.
- 7) ☒ Claim(s) 5, 27, 35, 38, 39, 44, 45, 49, 52 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,4,6-12,14-24,26,28-34,36,37,40-43,46-48,50,51 and 54-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohmi et al (US 6372646) in view of Nakata (US 5349604).

Re clm 1,9,11,12,19,23,24,31,: Ohmi et al discloses an illuminator comprising: an illumination system (Ohmi et al Fig 4) through which luminous flux is projected onto an object (Ohmi et al 31), the illumination system having plural surfaces (Ohmi et al 25, 26) and projects ultraviolet light (Ohmi et al Col 7 line 27).

However, Ohmi et al does not disclose a surface onto a portion of which a titanium oxide film absorbing ultraviolet light is applied. Nakata teaches that plural surfaces (Nakata S1, S2) of an illuminator (Nakata Fig 1) should have titanium oxide applied to them in order to prevent nonuniformity of luminous flux (Nakata Col 1 lines 40-46). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply titanium oxide to the plural surfaces of the illuminator of Ohmi et al because it would prevent nonuniformity of the luminous flux projected by the apparatus of Ohmi et al.

Re clm 2: a plurality of optical units (Ohmi et al 25,26)

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Re clm 4,14,26: the limitations of claims 4 and 14 are an inherent result of the combination system of Ohmi et al and Nakata

Re clm 6,7,16,17,28,29,41,55: a lens (Ohmi et al 25)

Re clm 8,18,30,37,43,51: Mirror (Ohmi et al 24)

Re clm 10,21,33: finding the optimum range of thickness involves only routine skill in the art and is thus obvious.

Re clm 15,36,47,50: a lens barrel (Nakata 37)

Re clm 20,32: a scan type exposure apparats (Ohmi et al)

Re clm 22,34,57,58,59,60,61,62 : the above disclosed invention is capable of performing the claimed method steps.

Re clm 40,46,54: a diffuser (Ohmi et al 26)

Re clm 42,48,56 : optical integrator (Ohmi et al 28)

Allowable Subject Matter

Claims 3,13 and 25 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose or suggest the claimed structure of the invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Claims 5,27,35,38,39,44,45,49,52 and 53 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose or suggest the claimed structure of the invention.

Response to Arguments

Applicant's arguments with respect to claims 1-62 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Note: No IDS has been filed with the amendment paper number 20 filed 7-29-02.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khaled Brown whose telephone number is 703-306-5738. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell E. Adams can be reached on 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Alan A. Mathews
Primary Examiner

KB
September 6, 2002